Assessing Degrees of Web-2.0-ness
Model and Results for Product Websites in the Pharma-Industry

Prof. Dr. Andrea Back (UniSG) – Christoph Haager (IBM Germany)
Outline

Cite as:

1 Context Enterprise 2.0
2 Research Question and Sample
3 Theoretical Background
4 Methodology of Model Development and Application
5 Limitations and Further Research
6 Discussion and Supplements
Context: Transformation to the Enterprise 2.0

Web 2.0 Principles used internally and in relationships to customers or business partners
McKinsey Quarterly Survey: Business and Web 2.0

Interactive Feature: Web 2.0 Use in B2C-Processes

Customer Purposes/
McKinsey Quarterly Survey: Business and Web 2.0

Interactive Feature: Web 2.0 Use in B2C-Processes

**Customer purposes:** Technologies and tools companies are using to reach customers

Click ‘x’ to hide technologies, or drag to customize order

<table>
<thead>
<tr>
<th>Purpose</th>
<th>2010</th>
<th>2009</th>
<th>N/A</th>
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<tbody>
<tr>
<td>Acquiring new customers</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving customer service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing products</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Letting customers interact with each other</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Marketing</td>
<td></td>
<td></td>
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<tr>
<td>Gathering insights</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podcasts</td>
<td>18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mash-ups</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Microblogging</td>
<td>15%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer to peer</td>
<td>10%</td>
<td></td>
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<td>Social networking</td>
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</tr>
<tr>
<td>Prediction markets</td>
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<td>Rating</td>
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<tr>
<td>RSS</td>
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</tr>
<tr>
<td>Tagging</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Video sharing</td>
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<td></td>
</tr>
<tr>
<td>Wikis</td>
<td>20%</td>
<td></td>
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</tbody>
</table>
Outline

1. Context Enterprise 2.0
2. Research Question and Sample
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5. Limitations and Further Research
6. Discussion and Supplements
Research Question: How „much“ 2.0 is in this Website?

How to measure 2.0-ness?
Transition of Business Websites from 1.0 to Web 2.0

Similar Research Questions and Concepts – But: What is Proven Theory?

Web 1.0
- Static company & products information
- Description of locations & contacts
- Contact form

Web 1.5
- Search options
- e-Business
- Online transactions
- Formular-based inquiries
- Online customer support

Web 2.0
- Corporate Blogs
- Corporate Wikis
- Social networks
- ...

Pole, A: Web 2.0 Applications in Private Banking, Fig. 4 (MA, St.G. Nov. 22, 2010 following Kolo, Eicher 2006: Web 2.0 und der neue Internet Boom, p. 73
Sample: Pharmaproduct (OTC) Websites

44 Websites of Over-the-Counter Products, German Market

- One Industry
- Pharma (local)
- German Market
- International Companies
- Pharma (Marketing Budgets)
- Pharma (Regulations)
- Over-the-Counter Products
- Publicly Accessible
- Website only

etc.: non-prescription = over-the-counter
# Summary: Results of the 2.0-ness Assessment

**Executive Summary:** 44 Websites, Overt-the-Counter Pharmaceutical Products, Germany

## Diversity in 2.0-Adoption: Within Industry & Company

<table>
<thead>
<tr>
<th>Website</th>
<th>Company</th>
<th>P</th>
<th>PM</th>
<th>PD</th>
<th>K</th>
<th>RU</th>
<th>RM</th>
<th>SUM</th>
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<td>1</td>
<td>5</td>
<td>Adopter</td>
</tr>
</tbody>
</table>

## Results Match the Innovation Adoption Life Cycle

## Companies Upgrade Websites Regarding 2.0-ness
Outline

1. Context Enterprise 2.0
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Theory I: Dot-com Bubble Burst 2000

What did the surviving companies' business models have in common?

10 years ago: Dotcom-Bubble

Theory I: What is Common to Surviving Businesses?

O’Reilly/Musser: Web 2.0 Principles and Patterns

<table>
<thead>
<tr>
<th>Harnessing Collective Intelligence</th>
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<tbody>
<tr>
<td>Data is the next “Intel Inside”</td>
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<tr>
<td>Innovation in Assembly</td>
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<tr>
<td>Rich user Experience</td>
</tr>
<tr>
<td>Software above the level of a Single Device</td>
</tr>
<tr>
<td>Perpetual Beta</td>
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<tr>
<td>Leveraging the Long Tail</td>
</tr>
<tr>
<td>Lightweight Models and Cost Effective Scalability</td>
</tr>
</tbody>
</table>
Theory I: Selection and Adaptation for Websites

Three Principles Do Not Apply – Six Dimensions of the Maturity Model

Harvesting Collective Intelligence

Data is the next “Intel Inside”

Innovation in Assembly

Rich user Experience

Software above the level of a Single Device

Perpetual Beta

Leveraging the Long Tail

Lightweight Models and Cost Effective Scalability

Participation

Knowledge

Mashup

Usability

Multimedia

Mobile Device
Theory II: Maturity Model or Typology?

How to Approach the Classification of Websites?

Maturity
(Innovation Adoption)

Typology
(2.0-ness Footprint)
Theory II: Innovation Adoption Life Cycle

Three Maturity Levels of Websites regarding 2.0-ness (Maturity-Model-Terminology)

- **Innovators** (11,36% - 5 out of 44)
  - Top Website
  - 13 out of max. 18 points

- **Adopters** (70,45% - 31 out of 44)

- **Laggards** (18,18% - 8 out of 44)
# Outline

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Method: Rating Scheme Design and Validation (1)

**Rating Scheme Design V0**
F2F-Discussion (Thesis-Author/Advisor)

**F2F Test-Rating and Discussion**
Rating of two Websites (low – high)

- **Hohes C Website**
- **Bad Dürrheimer Website**

**Rating Scheme Design V1**
Common Understanding by two Raters
Method: Rating Scheme Design and Validation (2)

Rating 44 Websites using V1
Independently by two Raters → Deviations

Calculating Interrater Reliability
Cohen’s Kappa and Landis (1977)

2nd Iteration

Error Correction  Rating Scheme Clarification  Rating Scheme Revision D1

Rating Scheme Design V2
Re-Rating the Sites with Deviations

Definite Rating Reaching Consensus
## Rating Scheme for Degrees of 2.0-ness (1)

Grades are „**Capability Levels**“ of the Dimensions (Maturity-Model-Terminology)

<table>
<thead>
<tr>
<th>Grade</th>
<th>P: Participation</th>
<th>PM: Platform Integration: Mashups</th>
<th>PD: Platform Integration: Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Contact form only (Web 1.0)</td>
<td>No mashup-like integration of content</td>
<td>Single device (e.g. PC/Notebook)</td>
</tr>
<tr>
<td>1</td>
<td>Facebook Like; and/or one or two user activity types, such as ‘recommend page via e-mail-form’, e-cards, interactive tests, online games, competitions to win a prize</td>
<td>Widget-like elements even if from company’s own content base (incl. blog as part of the product website) (e.g. Gesundheitsnavigator and Pollenvorhersage)</td>
<td>One option only: Website optimized for mobile devices, or smartphone app in one app store</td>
</tr>
<tr>
<td>2</td>
<td>Three or more of grade 1 interactions or several options of social bookmarking, like, tell-a-friend (similar to Forrester’s Collect)</td>
<td>Mashup with company external web-content (e.g. Google Maps or allergie.com glossary)</td>
<td>Combination of one app store plus optimized website. Special case: SMS-interaction (e.g. in nicorette)</td>
</tr>
<tr>
<td>3</td>
<td>Comments (text), upload of own fotos to e-cards e.g., forums, blog or community as part of the site (similar to Forrester’s Critic/Create)</td>
<td>Mashup with a diversity of company external webcontent services</td>
<td>Apps for more than one app store (whether optimized website or not)</td>
</tr>
</tbody>
</table>
### Rating Scheme for Degrees of 2.0-ness (2)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Hardly any valuable information beyond core product information (only via links to other websites)</td>
<td>Design mostly text-oriented and textual hyperlinks</td>
<td>Mostly text-oriented content</td>
</tr>
<tr>
<td>1</td>
<td>Diversity and richness of information beyond the product perceivable as <em>added value</em> (servicing and teaching the customer; a reason to revisit).</td>
<td>Uses current technologies, has a functional design. But look-and-feel is not 2.0-style (see grade 2 description)</td>
<td>Uses topic relevant fotos, animated pictures/graphs plus perhaps a singular Video, especially the products TV-spot</td>
</tr>
<tr>
<td>2</td>
<td>Collaboratively user generated content or knowledge, openly visible, in 1.0-format, such as discussion forum</td>
<td>Like 1, but look-and-feel is clearly 2.0-style (among other characteristics: minimalistic, simple navigation, header-banner, blog-design-like, visual, similar to e.g. styles of youtube, ning, mixxt.)</td>
<td>Three or more of these: fotoslideshows, animated pictures/graphs, ringtones, audio podcast, singular video/s (esp. TV-spot)</td>
</tr>
<tr>
<td>3</td>
<td>Community-like and collaboratively user generated content or knowledge, openly visible, in 2.0-format, such as blog and idea contests with user interaction such as voting and commenting)</td>
<td>Allows personalization (personalization), e.g. including or excluding widgets or customizing other design elements. Often Login required (e.g. interactive migraine diary)</td>
<td>Several elements (on top of an at least RM-grade 1 website): video-podcast beyond TV-spots (e.g. expert interviews or customer statements); video tutorials (CommonCraft-like or similar to web-based trainings), Interactive games, paint apps.</td>
</tr>
</tbody>
</table>
## Grading Results: Distribution of 44 Websites‘ Maturity

Assessment of Dimensions‘ Degrees based on Websites as of May 1st, 2011

<table>
<thead>
<tr>
<th>Grade</th>
<th>Participation</th>
<th>P-Mashup</th>
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Back, Haager (2011 Bled Conf): Assessing Degrees of Web-2.0-ness ...
Outline

1. Context Enterprise 2.0
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Limitations in Interpreting the Results

Strategy of Companies might be a deliberate 1.0-Design-Decision: 2.0 not an End in itself

Risk Management
Regulatory Contexts

Customer Focus
Non-2.0-Customers

Performance Impact
Insecurity about Link

Image: http://www.danielkogan.com/online-web-marketing-strategy/
Further Research

Our Current State-of-Research (analysed May 11) - and Work-in-Progress

Website-2.0-ness (published, Bled 11)

Social Media Presence & Performance (unpublished)

Platform: Mobile Device
Outline

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Discussion

Suggested topics

1. Are the 2.0 patterns a theory? What theories to use?

2. Do you know similar research and its terminology?

3. Suggestions for extended research (relevant & rigorous)?
Thank You, and the Reviewers!

Supplement
Presentation on Slideshare
http://www.slideshare.net/andreakback

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Prof. Dr. Andrea Back is full professor and director at the Institute of Information Management (IWI) at the prestigious Swiss University of St. Gallen (HSG) since 1994. Her research focuses on the area of Online Collaboration, Corporate eLearning, and Management in the Digital Economy (Enterprise 2.0/Business 2.0 paradigm) with an emphasis on applicability and knowledge transfer. She has published several books on the subject and publishes collaboratively online with a broad community of corporate and academic followers/contributors (cf. personal vlog at www.business20experts.unisg.ch, finalist in the European E-Learning-Award in 2009; Blog-Carnival www.wissenscarnival.net on Enterprise 2.0, Knowledge Management and eLearning nominated for the D-Elina Innovation Award 2011). She is a regular consultant for international corporations in regard to eLearning, Social Media, mobile services, most recently Swisscom, T-Systems Multimedia, Lufthansa, Bayer, UBS as well as a contributor to management education programs. For a list of consulting and research projects cf.


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